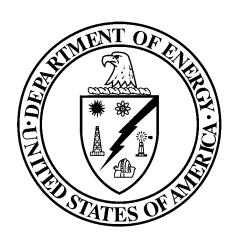# FEDERAL TECHNICAL CAPABILITY PROGRAM

TECHNICAL QUALIFICATION PROGRAM ASSESSMENT GUIDANCE AND CRITERIA

**Federal Technical Capability Panel
and the
Office of Human Resources and Administration**

**U.S. Department of Energy
Washington, D.C. 20585**

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INTRODUCTION

The Department of Energy's revised Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 93-3 enhances current Departmental initiatives to establish a Federal Technical Capability Program for federal technical employees with safety responsibilities at defense nuclear facilities. Part of that Implementation Plan requires the upgrade of the Technical Qualification Program (TQP) based upon a formal assessment process. This document establishes the guidance and criteria for conducting these assessments across the Department.

The approach that will be followed to upgrade the effectiveness of the Technical Qualification Program will commence with an initial (Phase I) assessment of the existing program. This assessment will be followed by development of revised Technical Qualification Program Plans, implementation of the revised Program Plans, and a Phase II assessment to evaluate the effectiveness of the upgrade process.

Phase I Assessments will be used as the basis for revising, as appropriate, the direction of the Technical Qualification Program for the office. Deficiencies in Technical Qualification Program Plans will be corrected using the Systematic Approach to Training methodology to identify position requirements, individual competence, and developmental needs. The revised Technical Qualification Program Plans will be provided to the Federal Technical Capability Panel for review to ensure that each office's Plan is consistent with the Technical Qualification Program principles.

A Phase II assessment will be conducted after the Technical Qualification Program is revised in accordance with the Technical Qualification Program Plans, and is being implemented. Phase II Assessments will continue periodically for the duration of the Program.

The guidance and criteria contained in this document are to be used as the basis for both the Phase I and the Phase II assessments. It is assumed that Phase I assessments will result in the identification of some deficiencies against the criteria established in this document. If the TQP upgrade process is effectively implemented, Phase II assessments should result in the identification of few, if any, deficiencies.

S. D. Richardson */s/*   7/23/98
S.D. Richardson, Chair
Federal Technical Capability Panel

GUIDANCE FOR PERFORMING THE ASSESSMENT

Establishing the Technical Qualification Program (TQP) Assessment Team

The TQP Assessment Team consists of a Team Leader and Team Members. The team will also include representation from the Federal Technical Capability Panel to provide mentoring, rigor, and to ensure a consistent approach. The representative from the Federal Technical Capability Panel may serve as the Team Leader. The TQP Assessment Team will report to the Office Manager.

TQP Assessment Team Leader

The roles and responsibilities of the TQP Assessment Team Leader are as follows:

C   Serves as the project manager for all TQP Assessment Team activities and acts as the primary point-of-contact with the organization being assessed.

C   Coordinates the activities of TQP Assessment Team members and ensures that assessment activities are performed in a competent and professional manner.

C   Prepares and submits the final report to the Office Manager who approves and forwards it to the Federal Technical Capability Panel

The TQP Assessment Team Leader is selected and/or approved by the Office Manager. The Team Leader does not necessarily have to be from the office being assessed. The Office Manager selects the most qualified individual to do the job. In making the selection, the following criteria should be considered:

C   The individual is a senior level (GS-15 or above) line manager with knowledge of, and experience with, the Technical Qualification Program. It is recommended that the TQP Assessment Team Leader be a Senior Technical Safety Manager.

C   The individual has experience leading an evaluation or project team;

C   The individual, by virtue of reputation, background, and/or experience, will be respected by the organization being assessed.

TQP Assessment Team Members

The roles and responsibilities of the TQP Assessment Team Members are as follows:

C   Perform assessment activities assigned by the TQP Assessment Team Leader in a confidential, competent and professional manner.

C   Provide input to the TQP Assessment Team Leader for the writing of the TQP Assessment Report as requested.

The TQP Assessment Team Leader has the primary responsibility for the selection of the Team Members. The importance of this task cannot be overemphasized. No other task has such a direct impact on the overall quality of the assessment.   The TQP Assessment Team may consist of members from the office being assessed, other DOE field or headquarters offices, and independent technical experts. The number and type of personnel on the team may vary based upon the size of the office, the time allotted, and the availability of qualified personnel. Typically, a TQP Assessment Team will have a Team Leader and three to five Team Members.

The following guidelines should be used by the Team Leader when selecting Team Members:

C   The Assessment Team should consist of a combination of line personnel with a strong technical background, and personnel with a background in the design, development, implementation or management of technical training and qualification programs.

C   Assessment Team Members should have technical experience relevant to their assignment, and should also have some experience conducting program assessments. This experience provides the background for Team Members to work independently at an unfamiliar location, gather information quickly, and make objective recommendations.

C   Use of the Core Technical Group should be considered when assembling the assessment team.

C   The Team Leader should determine whether any conflict of interest, actual or perceived, exists for any potential Team Member. If so, that Team Member must not be considered further;

C   Team Members, by virtue of their reputation, background, and/or experience, should be respected by the organization requesting the assistance.

Scheduling the Assessment

Technical Qualification Program Assessments should be scheduled four to six weeks prior to conducting the assessment. The assessment should be scheduled by the Assessment Team Leader, which means that the Team Leader should be identified six to eight weeks before conducting the assessment.

The Team Leader should draft a short letter or memorandum from the Office Manager announcing the assessment. The letter should be sent to all of the Office Manager's direct reports, and should be promulgated to all personnel that may be involved in the assessment. At a minimum, this includes all personnel currently in the Technical Qualification Program and their supervisors/managers. The letter should identify the Team Leader, Team Members (if they are known), and the Federal Technical Capability Panel representative. It should address the purpose and time period of the assessment, and reflect the support of the Manager. The Objectives and Criteria may be attached to the letter for reference.

The Team Leader should identify all Assessment Team Members as early as possible to ensure the availability of appropriate expertise. This will ensure the proper make-up of the team, and allow time for preparation activities prior to conducting the assessment.

Conducting the Assessment

An initial team meeting should be conducted prior to the team beginning the assessment. The initial team meeting provides the opportunity for the Assessment Team Members to get acquainted. It is also the point at which the Assessment Team Leader describes in detail the agenda, expectations and assignments for the assessment. Televideo conferences should be considered to minimize travel and time spent away from normal work assignments.

The Assessment Team Leader may want to schedule a brief kick-off meeting with select members of the office before commencing the assessment. Introductions and points of contact can be established at this meeting. The Team Leader should provide a brief summary of the purpose of the assessment, the schedule, and any particular needs of the team.

The Objectives and Criteria included in this document form the basis for conducting the assessment. The assessment report will be written based upon current status of achieving the objectives and criteria. Each of the criteria should be assessed independently, but within the scope of achieving the objective. The Team Leader may assign individual criteria or entire objectives to Team members to assess. Assignments should be based upon the size of the team and strengths of individual team members. Team members should determine the status of achieving the objectives and criteria based upon the following:

C   reviewing documents such as qualification cards, qualification standards, and other related documents;
C   reviewing individual qualification records and training plans;
C   observing Technical Qualification Program activities;
C   interviewing current and previous participants in the Technical Qualification Program;
C   interviewing supervisors of participants in the program
C   interviewing senior management

When conducting the assessment, the Team Leader and Team members should also consider the following:

C   Team Members may work independently during the assistance visit. However, they must ensure that they plan and schedule their activities in a manner that will allow them to accomplish their assigned tasks, minimize disruptions to normal site activities, and keep the Team Leader aware of their schedule of activities on a daily basis.

C   Team Members should work together during interviews of site personnel to minimize redundancy.

C   Team Members are accountable for the accuracy or the information they gather and the accuracy of any report or recommendations that they make as a result of that information. Team Members are to keep detailed notes, checklists, etc., to document the information gathered during interviews, observations or document reviews. Notes that explain the basis for identified issues or recommendations are to be provided to the Team Leader at the completion of assistance activities.

C   Assessment Team Members should meet as a group at the end of each working day. The meetings may be conducted either on-site or off-site.   Depending upon the scope and complexity of the assessment, these may be formal or informal meetings. Each Team Member should briefly discuss the activities within their area of responsibility including any potential issues or concerns that may have been identified. The Assessment Team Leader should encourage the identification of any unclear areas. This is important so that others may consider them later. The Assessment Team Leader should also continually insist on validation of facts and information submitted by Team Members.

C   Whenever possible, Team Members should try to get more than one perspective when evaluating a program or process, particularly if it appears that a significant deficiency exists. This can be accomplished by doing things such as backing up document reviews with interviews, or interviewing two different individuals (e.g., training staff and line management) about the same topic.

C   Daily status meetings with personnel from the Office being assessed should be considered to ensure that they are aware of any potential issues and to clarify concerns.

The Assessment Team Leader will conduct a close-out meeting with office personnel at the completion of the assessment. The Team Leader should briefly describe the activities of the team, identify conclusions and/or recommendations as they are known at the time of the meeting, discuss the schedule for delivery of the assessment report, and remind personnel that the report will be submitted to the Office Manager and the Federal Technical Capability Panel.

Assessment Report

The results of the Technical Qualification Program Assessment are documented in a written report. The report should be written by the Assessment Team Leader with assistance from the Assessment Team Members. The format of the Technical Qualification Program Assessment Report should be as follows:

1.   Cover page - this should include the title of the report including the name of the office assessed, and the date of the report.

2.   Executive Summary - this section should be limited to one page and provide a short overview of the team composition, dates of the assessment and methodology. A brief description of the results of the assessment should be provided, including strengths and weaknesses.

3.   Introduction - this section should provide relative background information, a description of the purpose of the report, and briefly describe the format of the report.

4.   Scope and Methodology - this section should identify the Team Leader and Team Members, reference the use of the objectives and criteria, and briefly describe the methodology applied.

5.   Results - this section should be subdivided into eight sections to individually address each of the seven objectives listed in the document, and to address the overall program. The report should describe the current status of achieving the objective, including the identification of any strengths or weaknesses. It is not necessary to individually address each of the criteria for the objectives, however, if any of the criteria are not achieved, a deficiency(s) should be identified for the objective.

6.   Summary - this section should provide an overall status of the program and list general recommendations if applicable.

7.   Attachments - the following attachments should be included with the report:

    C   The objectives and criteria
    C   List of personnel contacted and documents reviewed
    C   Any other pertinent information

Team Members should be given an opportunity to review and comment on the report before its issuance. The report should be approved by the Assessment Team Leader and forwarded to the Office Manager. The Office Manager should forward the report to the Chairperson of the Federal Technical Capability Panel for review.

**TECHNICAL QUALIFICATION PROGRAM
ASSESSMENT OBJECTIVES AND CRITERIA**

TQP-1   **Demonstration of Competence**: The program clearly identifies and documents the process used to demonstrate employee technical competence.

Criteria

1.1   At a minimum, personnel providing management direction or oversight that could impact the safe operation of a defense nuclear facility have been identified as participants in the Technical Qualification Program.

1.2   Individual Development Plans (IDPs), training plans, technical qualification records, or other related documents are updated to reflect the activities that each individual shall participate in to satisfy competencies.

1.3   A formal evaluation process is in place to objectively measure the technical competency of personnel. The rigor of the evaluation process is commensurate with the responsibilities of the position.

TQP-2   **Competency Levels**: Competency requirements are clearly defined and consistent with applicable industry standards for similar occupations.

Criteria

2.1   Competency requirements include clearly defined knowledge, skill, and ability elements.

2.2   Subject matter experts are involved in establishing competency requirements.

2.3   Consideration of related professional certification requirements is included in the program as applicable.

2.4   Competency requirements are identified in the areas listed below (Note: this does not imply that three separate documents are required).

   C   Basic Technical Knowledge: This includes basic fundamental knowledge of radiation protection, occupational safety, chemical safety, nuclear safety, environmental regulations, and other areas.

C   Technical Discipline Competency: Competency in a technical discipline (e.g., mechanical engineering, chemical engineering) which can be demonstrated by education, professional certification, examination or on-the-job performance.

C   Position Knowledge, Skills, and Abilities: Specific to the position and the office.

TQP-3   **Plans and Procedures**: Plans and/or procedures are developed and implemented to govern the administration of the program.

Criteria

3.1   The Technical Qualification Program has the commitment of senior management.

3.2   Written procedures that adequately define the processes and requirements to implement the Technical Qualification Program are in place.

3.3   Roles and responsibilities for the implementation of the Technical Qualification Program are clearly defined and understood by all involved.

3.4   The procedures that govern the implementation of the Technical Qualification Program are understood by all involved, and are being implemented as written.

3.5   A training and qualification records system is established for each employee in the Technical Qualification Program.

TQP-4   **Qualification Tailored to Work Activities**: The program includes the identification of unique Department and position-specific work activities, and the knowledge and skills necessary to accomplish that work.

Criteria

4.1   An analysis has been performed to identify the related knowledge, skill, and ability elements to accomplish the duties and responsibilities for each Technical Qualification Program functional area or position.

4.2   The program includes job-specific requirements related to the rules, regulations, codes, standards, and guides necessary to carry out the mission of the office.

4.3   The program supports the mission needs of the office.

TQP-5 **Credit for Existing Technical Qualification Program(s)**: The program is structured to allow credit, where appropriate, for other technical qualification program accomplishments.

Criteria

5.1 Credit(equivalency) is granted for previous training, education, experience and completion of related qualification/certification programs, where applicable.

5.2 Equivalency is granted based upon a review and verification of objective evidence such as transcripts, course certificates, test scores or on-the-job experience.

5.3 Equivalencies are validated, approved and documented in a formal manner.

TQP-6 **Transportability**: Competency requirements that are identified as having Department-wide applicability are transferable.

Criteria

6.1 The program includes all of the competencies that have been identified as having Department-wide applicability.

6.2 Formal documentation of the completion of Department-wide competencies is maintained in a manner that will allow for easy transferability.

6.3 The Technical Qualification Program is integrated with personnel-related activities such as positions descriptions, vacancy announcements, recruiting, and performance appraisals.

TQP-7 **Measurable**: The program contains sufficient rigor to demonstrate compliance to the principles.

Criteria

7.1 The technical competency of personnel who have completed the requirements of the Technical Qualification Program is adequate and appropriate.

7.2 The program allows for continuous feedback and periodic evaluation to ensure that it meets the needs of the Department and the mission(s) of the office.

7.3 The Program includes provisions for continuing training